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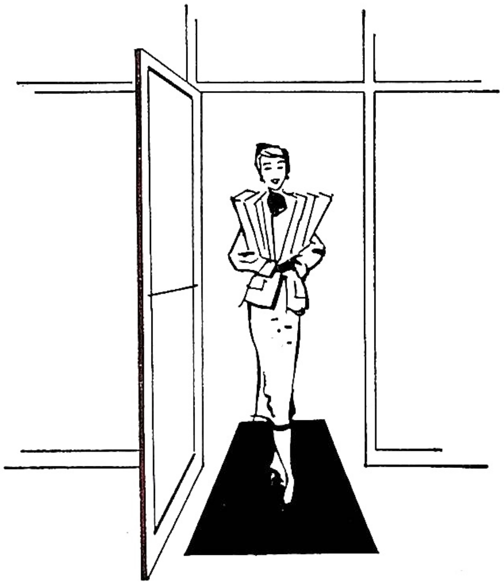

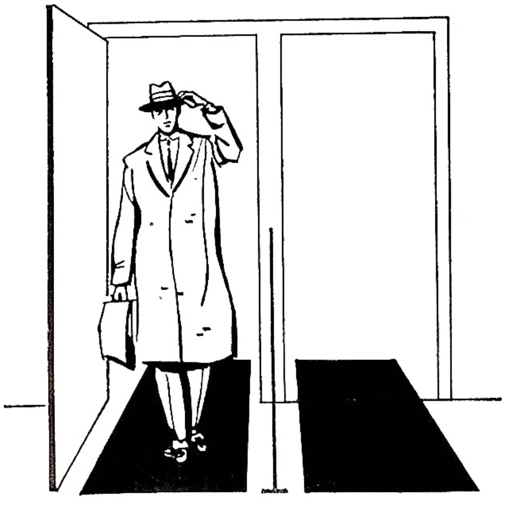

DOR-O-MATIC

INVISIBLE DOR-MAN®

Automatic DOOR OPERATORS

DOR-O-MATIC *division of* REPUBLIC INDUSTRIES, INC.

1959

A.I.A. File No. 27-C

DOR-O-MATIC INVISIBLE DOR-MAN

WHEN THE INVISIBLE DOR-MAN IS ON DUTY ...
TRAFFIC ALWAYS MOVES QUICKLY ... CONVENIENTLY

hospital doors

Exterior
Vestibule
Out Patient
Operating Room
Recovery Room
Kitchen
Corridor

medical centers, clinics,
rehabilitation centers

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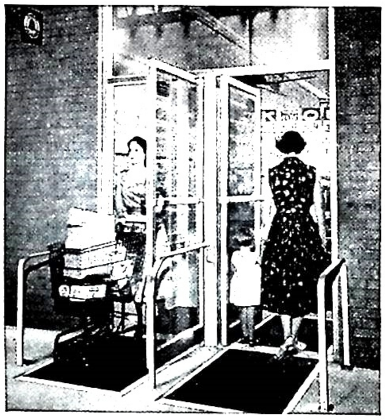
store doors

Exterior
Vestibule
Parcel Pick-Up
Service

food, beverage,
laundries, cleaners



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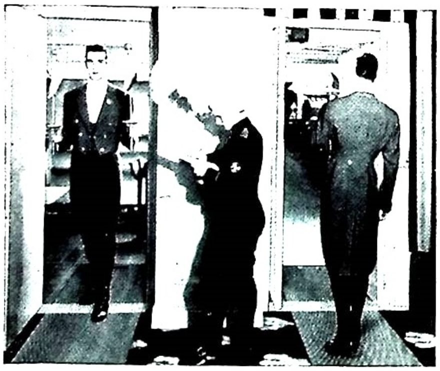
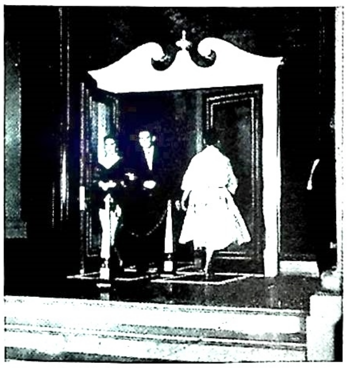
hotel doors

Exterior
Vestibule
Kitchen Service
Lounge
Function Rooms

motels, country clubs,
auditoriums, museums,
theaters, recreation, government
and commercial buildings





. . AUTOMATIC DOOR OPERATORS

. . . SAFELY . . . AND WITH PRESTIGE

restaurant doors

Entrance
Vestibule
Lounge
Service

In confined areas automatically operated sliding doors provide safe, two way traffic. Doors slide into wall pockets for complete concealment.

terminal doors

Entrance
Vestibule
Service
Baggage
Restaurant
Lounge

bank doors

Entrance
Vestibule
Safety deposit area
(remote controlled)

the INVISIBLE DOR-MAN offers many advantages

● economy

In every way, from initial unit cost and including installation and maintenance, the Invisible Dor-Man offers outstanding economy. The automatic door control mechanism is installed in the floor beneath the door as easily as any manually operated floor type door hinge. The compact hydraulic power unit can be placed in any convenient ventilated area up to 100 feet from the door. The power unit electric motor cord is simply plugged into a standard grounded type 115 volt convenience outlet. Heavy duty hydraulic hose lines or copper tubing connect the power unit to the door control mechanism. The Invisible Dor-Man can be readily applied to any new or existing standard metal, wood or glass door without any alteration to the door or frame. No unsightly devices are required at the door head jamb so narrow transom lines may be maintained.

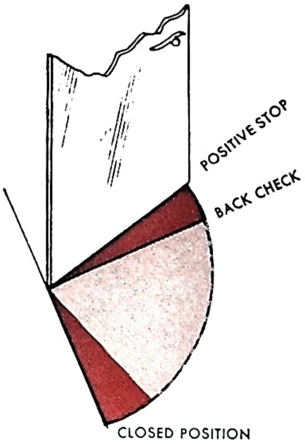
● service

Simplicity of design plus high manufacturing standards insure smooth, trouble-free performance and low maintenance costs under even the severest traffic conditions. A nationwide sales and service organization, located in principal cities, is eager to offer assistance should it be required.

● safety

The carpet operates on a 24 volt A.C. circuit and is furnished in two sections; the actuating section and a safety section. The door opens away from the person who steps on the actuating carpet. The door remains open while the person passing through it is on the safety section of the carpet. When pressure is removed from the safety section the door closes after a timed safety delay. Pressure on the actuating carpet will not open the door should someone be standing on the safety section in the path of the swing of the door. When the safety section is cleared the door will open. Safety features are incorporated into the Touch-O-Matic handle and other control systems. The automatic hinge is designed to operate manually with complete opening and closing control to provide safe passage when the power is turned off or has failed.

● positive control



Door opening and closing speeds are easily regulated in the field to suit conditions at the time of installation and whenever necessary. The door control mechanism or hinge incorporates a two speed opening and a two speed closing action to prevent banging or slamming of the door. The initial fast opening speed is greatly reduced approximately 10° from the 90° open position by a hydraulic cushioning device. A similar action takes place as the door closes. The closing speed is reduced when the door is approximately 10° from the closed position. See illustration.

INVISIBLE DOR-MAN

THE AUTOMATIC DOOR OPERATOR FOR SWING AND SLIDING TYPE DOORS

what it is

The instant someone steps on the carpet leading through the doorway, or other switch type controls are activated, the INVISIBLE DOR-MAN goes into action . . . opening the door quietly, quickly, safely, automatically. Completely concealed in the rigid floor beneath the door, the automatic hinge mechanism can be easily applied to any type of swinging or sliding door. The power unit or operating mechanism, entirely invisible, can be installed so the door will glide open and close without a sound.

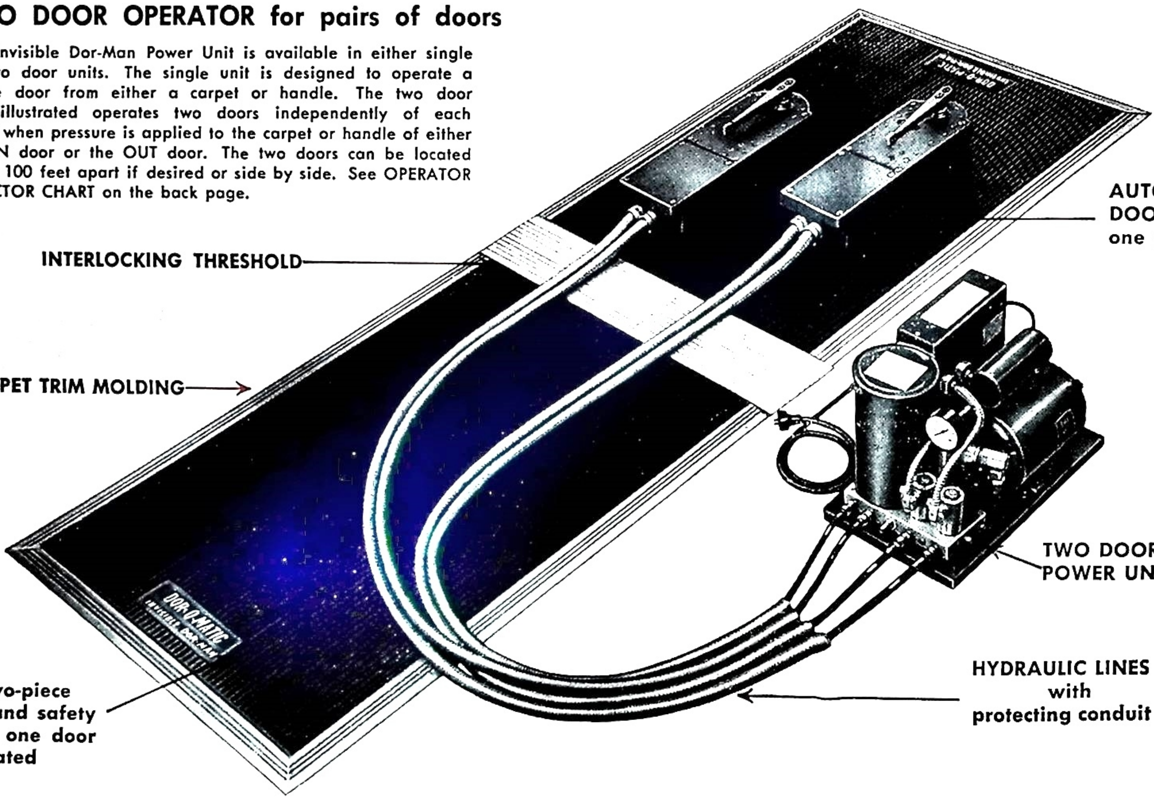
how it works

The INVISIBLE DOR-MAN consists of three basic, compact components; the automatic hinge which is concealed in the floor beneath the door, the power unit and the carpet or other actuating control. The foot pressure of a small child on the carpet is sufficient to activate the electric control of the hydraulic power unit or pump through a low voltage control circuit. The power unit then applies pressure to the fluid in the hydraulic lines which lead to the door control mechanism. This hydraulic pressure is the force which causes the automatic hinge to open the door. Hydraulic control always provides positive control. No unsightly air lines and gauges, enlarged door frame transom bars or other visibly applied devices are necessary when the INVISIBLE DOR-MAN is on duty.

Typical supermarket installation with No. 1095SC guard rails. A complete line of accessories is available.

TWO DOOR OPERATOR for pairs of doors

The Invisible Dor-Man Power Unit is available in either single or two door units. The single unit is designed to operate a single door from either a carpet or handle. The two door unit illustrated operates two doors independently of each other when pressure is applied to the carpet or handle of either the IN door or the OUT door. The two doors can be located up to 100 feet apart if desired or side by side. See OPERATOR SELECTOR CHART on the back page.


INTERLOCKING THRESHOLD
CARPET TRIM MOLDING
CARPET, two-piece actuating and safety section for one door only illustrated
AUTOMATIC DOOR CONTR one per door
TWO DOOR POWER UNIT
HYDRAULIC LINES with protecting conduit
DOR-O-MATIC

recommended installation

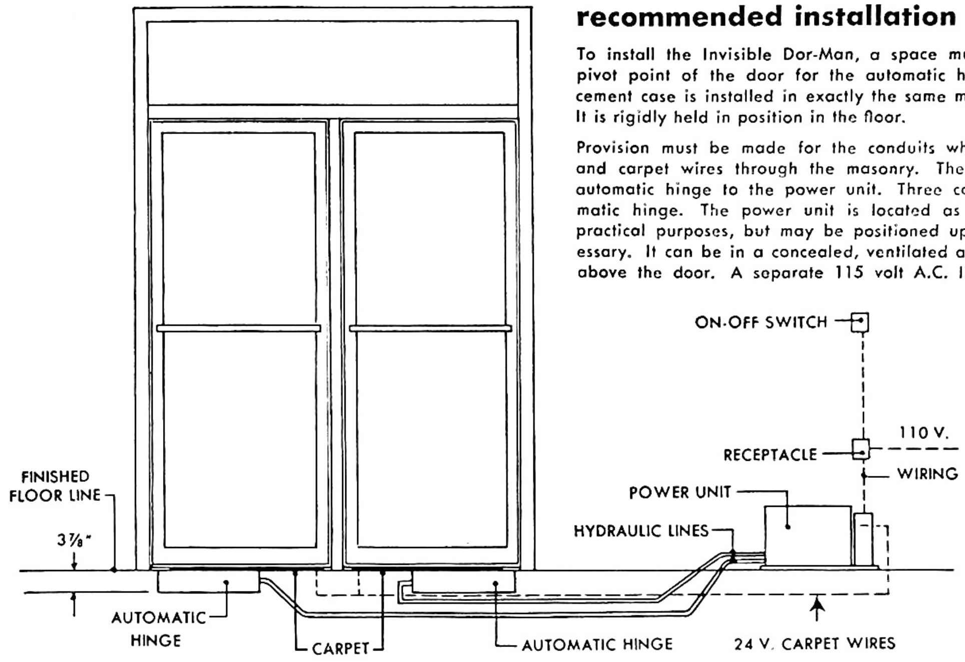
To install the Invisible Dor-Man, a space must be provided in the floor at the pivot point of the door for the automatic hinge. The hinge which is set in a cement case is installed in exactly the same manner as a regular floor type hinge. It is rigidly held in position in the floor.

Provision must be made for the conduits which protect the two hydraulic lines and carpet wires through the masonry. These lines and wire extend from the automatic hinge to the power unit. Three conduits are required for each automatic hinge. The power unit is located as close to the door as possible for practical purposes, but may be positioned up to 100 feet from the door if necessary. It can be in a concealed, ventilated area below the floor, at floor level or above the door. A separate 115 volt A.C. line with an on and off switch and three wire grounded type convenience outlet should be provided for the power unit.

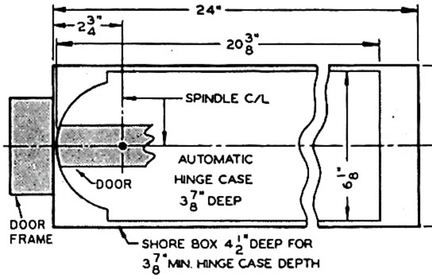
Copper tubing, 5/16" O.D. x .030" wall, is recommended for the hydraulic lines when the power unit is located at a distance from the door. Dor-O-Matic Flexible Couplings must be used at the ends of the copper tubing to provide a flexible connection between the tubing, the power unit and the automatic hinge.

The electric carpets are ½" thick and are furnished in two sections with a 7" wide interlocking aluminum threshold. Capets may be installed on the surface of the finished floor or recessed so they are flush with the finished floor. Extruded trim moldings are furnished for surface applied carpets. A factory fabricated carpet frame assembly is recommended for recessed carpets because it properly positions trim, carpets and hinges. Refer to table on carpets on page 6.

Complete installation instructions and templates are furnished with all units.



TYPICAL IN AND OUT TWO DOOR INSTALLATION WITH TWO DOOR POWER UNIT AS ILLUSTRATED ON OPPOSITE PAGE

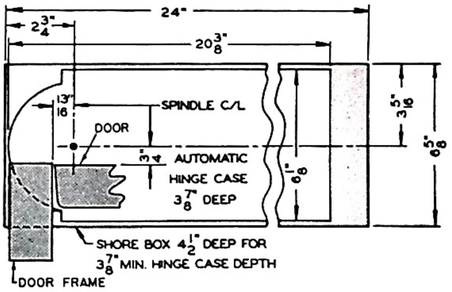

24"
2¾"
20⅜"
SPINDLE C/L
3 5/16"
6⅝"
AUTOMATIC HINGE CASE 3⅞" DEEP
DOOR
6⅛"
DOOR FRAME
SHORE BOX 4½" DEEP FOR 3⅞" MIN. HINGE CASE DEPTH

CENTER PIVOTED HINGE

Plan view of hinge, shore box and door jamb conditions.

Refer to Invisible Dor-Man center pivoted hinge template No. 663 and offset pivoted template No. 653 for more detailed information.

NOTE: All carpet length dimensions are from spindle centerlines of both the center and offset pivoted automatic hinges. See carpet table on page 6.


24"
2¾"
20⅜"
13/16"
SPINDLE C/L
DOOR
¾"
AUTOMATIC HINGE CASE 3⅞" DEEP
6⅛"
3 5/16"
6⅝"
SHORE BOX 4½" DEEP FOR 3⅞" MIN. HINGE CASE DEPTH
DOOR FRAME

OFFSET PIVOTED HINGE

Plan view of hinge, shore box and door jamb conditions.

construction information:

general—Hydraulically operated, electrically controlled. Adjustable for opening and closing speeds. Manual opening and closing action when desired or in event of power failure.

power unit—Single, two door independent and two door simultaneous. Size overall 18¼" long, 11" wide, 13" high. Pump, hydraulic, positive displacement, equipped with safety relief valve. Motor, ½ H.P., 115 volts, 60 cycle A.C., single phase, 5.6 amperes furnished as standard. ½ H.P., 230 volt, 60 cycle A.C., single phase and ½ H.P., 230 volt, 60 cycle, three phase also available, all with thermal overload protection. Shipping weight: single unit, 65 pounds, two door units, 70 pounds.

automatic hinge mechanism—Size overall 20⅜" long, 6⅛" wide, 3⅞" deep. Available for center or offset pivoted doors. Furnished with cement case. Shipping weight, 40 pounds.

hydraulic lines—High pressure, one wire braid neoprene hose, 11,000 p.s.i. burst test. Low pressure return line one rayon braid neoprene hose, 800 p.s.i. burst test, protected through masonry by 1" conduit. Copper tubing, 5/16" O.D. x .030" wall, 3600 P.S.I. burst test, recommended for runs in excess of thirty feet.

carpet—Two-piece molded plastic, ½" thick, hermetically sealed, 24 volt control circuit. Furnished for surface or recessed installation with interlocking type threshold and edge trim. See chart page 6 for details and dimensions. Shipping weight, 120 pounds maximum.

handle switches—Exposed components, extruded aluminum, polished and anodized. Safety type 24 volt control switches. Shipping weight of handle switch assembly, 25 pounds.

standard controls

A

B

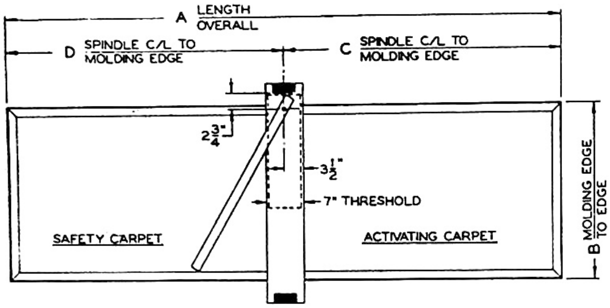
C

A. Carpet controlled operators are ideal where high density traffic must be accommodated quickly. Incoming and outgoing traffic can be separated so movement through the doors is safe and effortless.

B. TOUCH-O-MATIC controls for tempered glass doors enhance the appearance of institutional, commercial and specialty store entrances and provide for safe two way traffic.

C. TOUCH-O-MATIC controls for narrow stile metal doors extend a warm invitation to enter as they provide easy and convenient access. Safety controls in the push and pull bars assure safe two way traffic. Similar controls may be used with wood doors.

carpet details

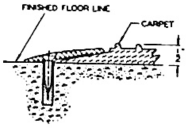


carpet dimensions

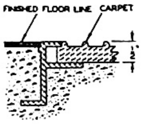
SURFACE INSTALLATION						
Carpet Assembly No.	A Length Overall	B Width Overall	C Actuating Length	D Safety Length	Carpet Section No.	Carpet Trim Assembly No.
1610A	8'-4¼"	31½"	50⅛"	50⅛"	2-1605	1628A
1620A	7'-4½"	31½"	50⅛"	38⅜"	1-1605 1-1606	1631A
1640A	8'-4¼"	38¾"	50⅛"	50⅛"	2-1636	1629A
1641A	7'-4½"	38¾"	50⅛"	38⅜"	1-1636 1-1637	1641A
RECESSED INSTALLATIONS						Recessed Carpet Frame Assembly No.
1621A	8'-1"	28⅛"	48½"	48½"	2-1605-1	1690A
1622A	7'-1¼"	28⅛"	48½"	36¾"	1-1605-1 1-1606-1	1691A
1642A	8'-1"	35⅛"	48½"	48½"	2-1636-1	1692A
1643A	7'-1¼"	35⅛"	48½"	36¾"	1-1636-1 1-1637-1	1693A

NOTE: Overall dimensions include trim molding. All length dimensions are from spindle center line of center and offset pivoted automatic hinges. See hinge details page 5.

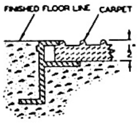
To determine minimum vestibule dimensions from spindle center line of outer door to spindle center line of inner door for carpet installations add 1" to A dimension in above table.



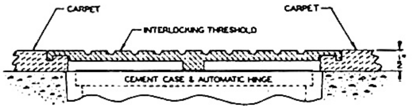
Extruded aluminum trim moldings are recommended for all surface applied carpets. Trim is fastened to floor with stainless steel screws.



Recessed carpet frame assembly as installed for tile flooring. Surface of recessed carpet ribs are always flush with finished floor line



Details of recessed carpet frame assembly and trim for terrazzo floor installation. Top of automatic hinge set ½" below finished floor line.



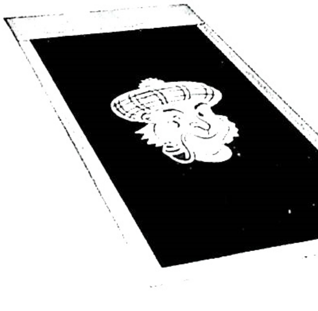
Details of interlocking threshold for two-section carpets. Threshold is designed to permit easy access to automatic hinge for adjustment or service without removing or disturbing carpets.

carpets in color

INVISIBLE DOR-MAN carpets are available in five standard colors: cordovan brown, fiesta blue, dove gray, charcoal gray and estate green. These appealing colors will brighten any entrance. Color samples are available upon request.

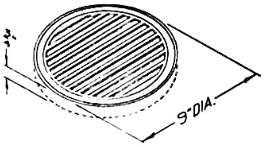
Carpets can be furnished with customer trademarks or monograms with the trademark in the same color as the carpet or in a contrasting color for increased identification.

Carpets in special colors can be made to meet individual color requirements.

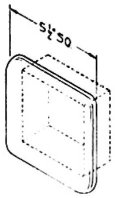


special purpose controls

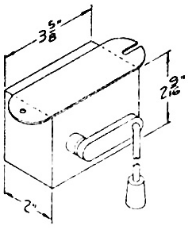
Special purpose controls are designed to meet specific traffic and control conditions encountered in industrial, service and institutional door applications. Floor, wall, push button and pull cord type switches are available. Pull cord switches are of the momentary contact type to open or close the door when the cord is pulled. Time delay features may be incorporated into these controls. Explosion proof switches should be specified for explosive (gaseous) atmospheres.



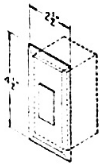
No. 1275A FLOOR SWITCH
Explosion proof—No. 1275EPA



No. 1290A WALL SWITCH
Explosion Proof—No. 1290EPA



No. 1200A PULL TYPE
Explosion proof—No. 1200EPA



No. 1205A PUSH BUTTON
Momentary contact type

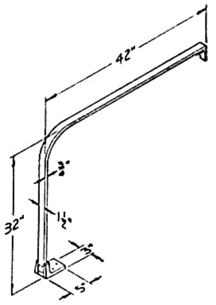
No. 1210A PUSH BUTTON
Maintain contact type

Explosion proof—No. 1205EPA & 1210EPA

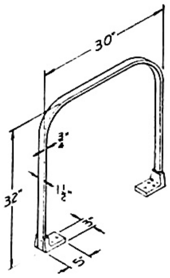
accessories

guard rails

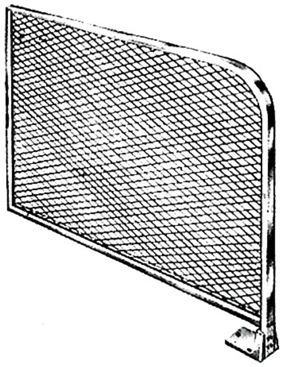
Guard rails are recommended to direct or divide incoming and outgoing traffic in busy entrances. Rails are extruded aluminum, polished and anodized. Screen is expanded metal. Rails are furnished with mounting fittings.



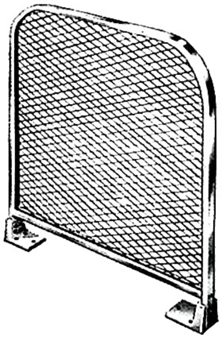
No. 1095 STANDARD RAIL
42" long x 32" high x 1½" x ¾"



No. 1096 FREE STANDING RAIL
30" long x 32" high x 1½" x ¾"



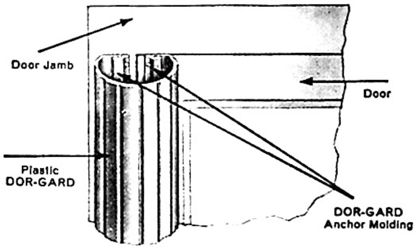
No. 1095SC STANDARD
SCREEN RAIL
Same dimensions as No. 1095



No. 1096SC FREE STANDING
SCREEN RAIL
Same dimensions as No. 1096

RAILS ARE AVAILABLE TO SPECIAL DESIGN AND DIMENSION. SUBMIT SKETCH OR SEE YOUR DOR-O-MATIC REPRESENTATIVE.

DOR-GARDS®



DOR-GARDS prevent careless fingers from being jambed between the door and frame of a closing door. They are easily installed on metal or wood doors. Flexible plastic for long life with concealed extruded aluminum anchor moldings, DOR-GARDS work equally well on pivoted or hinged doors, automatically or manually operated. Furnished in sets to protect both sides of a door.

No. DG-70 DOR-GARDS for doors to 7'-0" high.

No. DG-76 DOR-GARDS for doors to 7'-6" high.

barrier ropes

Red U.S. Naugahyde covered chain to direct traffic through the proper door.

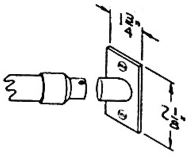
No. BR-30 STANDARD BARRIER ROPE, 48" long for doors to 36" wide

No. BR-36 STANDARD BARRIER ROPE, 54" long for doors 42" wide

No. BRP-30 BREAKAWAY BARRIER ROPE, 48" long for doors to 36" wide

No. BRP-36 BREAKAWAY BARRIER ROPE, 54" long for doors 42" wide

DETAILS OF BARRIER BREAKAWAY FOR EMERGENCY OR PANIC RELEASE EQUIPPED "IN" DOORS.



EMERGENCY DOOR RELEASE FOR "IN" DOORS
Center pivoted "IN" doors can be equipped with a panic release, No. 1160A, to convert them to OUTSWINGING doors in an emergency.

multiple door installations

Installation and operational economies frequently result when a Central Power Unit Installation is engineered for multiple door applications. Twelve to forty-eight doors can be independently operated from a single oil hydraulic central power unit. Carpets or special purpose controls may be specified. Contact your Dor-O-Matic representative or submit details for engineering data and suggested layout.

INVISIBLE DOR-MAN operator selector chart

CENTER PIVOTED DOORS
Single acting, handed, 90° door opening

OFFSET PIVOTED DOORS
Single acting, handed, 90° door opening

CARPET CONTROLLED MODELS

Single Door—Model No. M663
Two Doors—Model No. M663-2 independent operation each door
Pairs of Doors—Model No. M663-1 simultaneous operation both doors

Single Door—Model No. M653
Two Doors—Model No. M653-2 independent operation each door
Pairs of Doors—Model No. M653-1 simultaneous operation both doors

TOUCH-O-MATIC (Handle controlled) MODELS FOR METAL AND WOOD DOORS

Single Doors—Model No. HM663
Two Doors—Model No. HM663-2 independent operation each door
Pairs of Doors—Not recommended

Single Doors—Model No. HM653
Two Doors—Model No. HM653-2 independent operation each door
Pairs of Doors—Not recommended

TOUCH-O-MATIC FOR TEMPERED GLASS DOORS

Single Door—Model No. HG663
Two Doors—Model No. HG663-2 independent operation each door
Pairs of Doors—Not recommended

EMERGENCY RELEASE FOR "IN" DOORS
Specify Panic Release No. 1160A
For use with center pivoted doors only

ORDERING INFORMATION For all pivoted doors:

1. Advise if center or offset pivoted.
2. Specify hand.
3. Advise if metal, glass or wood.
4. State distance from automatic hinge to power unit to determine length of hydraulic lines.
5. Advise door thickness on TOUCH-O-MATIC models.
6. Specify accessories required.

SLIDING DOOR OPERATORS

Single Door—Model No. S657
Two Doors—Model No. S657-2 independent operation each door
Pairs of Doors—Model No. S657-1 simultaneous operation both doors

ORDERING INFORMATION:

1. Specify door width, height, and thickness.
2. Specify type of actuating control.
3. Submit details wall construction.
4. State distance between doors and power unit.

NOTE: Sliding door operators can be installed completely concealed in the wall adjacent to the doors. Doors in open position are concealed in wall pockets. Heavy duty sliding door hanger hardware, elevator hatch door type, is recommended. Complete details and engineering data furnished upon request.

SUGGESTED SPECIFICATIONS

Note to specification writer: A separate section is recommended for the automatic door operator specification instead of including it under one of several other sections. The result will be a better specification conducive to more accurate bidding by sub-contractors. Related work specified under other sections should refer to this section.

1. GENERAL:

The "general conditions of the contract," latest edition, and amendments under "special conditions," apply to this work and are a part of this specification.

2. SCOPE:

A. Work included—This contractor shall furnish and install Dor-O-Matic Invisible Dor-Man operators, model number, (select model number from selector chart), including equipment and accessories required to provide automatic operation for doors so indicated on the plans. All items shall be as manufactured by the Dor-O-Matic Division, Republic Industries, Inc., Chicago, Illinois. This contractor shall furnish cement case for Invisible Dor-Man automatic hinge for installation by the masonry contractor.

B. Work not included—The *masonry contractor* shall install in floor where indicated on plans, cement cases for Invisible Dor-Man automatic hinges, or, he shall set shore boxes to permit setting of cement cases after floor has been poured. He shall provide carpet recesses of size indicated, and floor beneath carpet shall be finished smooth and free of all surface irregularities. He shall coordinate his work with that of the electrical contractor installing conduit for hydraulic lines.

The *electrical contractor* shall furnish and install necessary conduit, wiring, boxes, connections, and cut-off switch in 115 V. single phase A.C. circuit, separately fused, with grounded type convenience outlet located near power unit, all installed in accordance with local regulations and/or the automatic door operator manufacturers detailed requirements.

3. EQUIPMENT:

A. Automatic Hinge—Automatic hinge shall be oil hydraulic operated, and of a type which does not require periodic changing of the hydraulic oil. It shall be fully concealed and installed in the floor directly beneath the door, and operated from a separate power unit. It shall provide complete and free manual opening and closing of the door when electric power is turned off. Pneumatic, hydraulic-pneumatic, or electro-mechanical devices are not acceptable.

Automatic hinge shall have adjustments to provide for adjustable door opening speed, and two speed closing action. It shall have adjustable back checking action to cushion door at end of the opening cycle. All adjustments shall be readily accessible by removing section of interlocking carpet threshold without disturbing carpets or carpet trim molding. Adjustment ports shall be sealed-type so adjustments can be made while unit is in operation. The unit shall have integral screws to provide for leveling adjustment of the automatic hinge in its cement case.

B. Power Unit—Power unit shall consist of a hydraulic fluid reservoir, positive displacement pump, pressure relief valve, pressure gauge, and ½ H.P. motor (for one and two door units) 115 V., 60 cycle A.C., single phase, (230 V. single and 3 phase available, if required) 5.6 amperes, with built in thermal overload protection. Power unit shall be located in a ventilated area as shown on plans.

Power unit shall be connected to automatic hinge by means of hydraulic pressure and return lines. Where hydraulic lines pass through masonry, they shall be installed in 1" conduit, thin wall, or plastic pipe. Pressure line shall be one wire braid reinforced neoprene hose with burst test rating of 11,000 P.S.I. Return line shall be one rayon braid reinforced neoprene hose with burst test rating of 800 P.S.I At contractor's option hydraulic pressure and return lines can be 5⁄16" O.D. x .030" wall copper tubing with burst test rating of not less than 3600 P.S.I. Copper pressure lines shall be connected to automatic hinge and power unit with flexible couplings furnished by the door operator manufacturer.

Hydraulic fluid shall be a non-deteriorating type, which does not require periodic changing or flushing of the system.

C. Control—*Carpet control:* Automatic door operators shall be activated by means of a ½" thick, hermetically sealed, molded vinyl electronic carpet. Carpet colors shall be selected by the architect.

Carpets shall be permanently installed on surface of finished floor with an aluminum interlocking threshold and trim molding furnished by the operator manufacturer.

Alternate carpet control specification: Carpet shall be installed in floor recess flush with finish floor in recessed carpet trim molding assembly furnished by the operator manufacturer.

Optional controls:

Automatic door operator shall be activated by handle-type switches (or selected type control) furnished by the manufacturer of the automatic door operator.

4. INSTALLATION:

Automatic door operators and accessories shall be installed by a factory trained contractor in strict accordance with the manufacturer's recommendations. Automatically operated doors shall be in alignment with adjacent work. The installation shall be subject to inspection and final acceptance by the architect.

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